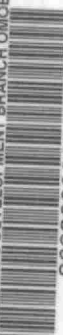


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**THE
ONTARIO WATER RESOURCES
COMMISSION**

**REPORT ON A
WATER POLLUTION SURVEY
OF THE
MUSKOKA LAKES**

AUGUST 1962

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Report of a water pollution
survey of the Muskoka Lakes /

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REPORT

ON A

WATER POLLUTION SURVEY

OF THE

MUSKOKA LAKES

by

THE ONTARIO WATER RESOURCES COMMISSION

August, 1962'

REPORT

ONTARIO WATER RESOURCES COMMISSION

INTRODUCTION

On July 30, 31 and August 1, 1962, samples for bacteriological examination were obtained from Lakes Muskoka, Joseph and Rosseau; Lake of Bays; and Fairy, Mary and Peninsula Lakes respectively.

This examination was a repeat of the two sampling surveys conducted in 1961. Samples collected during the latter survey were analysed for biochemical oxygen demand and turbidity in addition to the regular bacterial examinations.

Due to the fact that the water was found to be of satisfactory bacteriological and chemical quality in 1961, it was felt that bacterial examinations of the samples collected would suffice as an indicator of pollution, if any.

Water pollution investigations were also made in some municipalities and built-up areas bordering these lakes by Mr. W.G. Vance, Engineer's Assistant of the Ontario Water Resources Commission. Individual reports were prepared on these surveys and were directed to the municipalities and parties concerned.

The lake samples were collected by Mr. P. Lonergan, Engineer's Assistant who also prepared this report.

On July 30 and August 1, the warm and sunny weather was conducive to recreational activities such as swimming and water skiing by the summer residents here. During the morning of July 31 the skies were overcast and there was some light precipitation. Warm and sunny weather prevailed in the afternoon.

SAMPLING PROCEDURE

The sampling points are shown on Figure 1 attached to the report. These samples were taken approximately 100 feet

from shore in the proximity of the larger tourist and settled areas on the lakes and in the vicinity of known sources of pollution and treated waste discharges. Six (6) ounce samples were collected for bacteriological examination. The tests were conducted at the Ontario Water Resources Commission Laboratory. The laboratory results of the samples obtained from the various sources are presented in Tables 1 to 7.

SUMMARY OF BACTERIOLOGICAL RESULTS OF LAKE SAMPLES

The membrane filter technique was employed to obtain a direct enumeration of coliform organisms, and the number is reported per 100 millilitres.

Waters having a total coliform count in excess of 2,400 per 100 millilitres as determined by this technique do not meet the recognized objectives for water quality as set by the Commission for all waters in the Province of Ontario.

Generally it may be said that the bacteriological results of the samples collected during the 1962 survey showed some slight increase when compared to the samples obtained at the time of the 1961 examinations.

In Lake Muskoka, high coliform counts were noted in two areas, namely the Lighthouse Narrows and in the north east section of Milford Bay. A coliform count of 2,100 per 100 millilitres was evident in the vicinity of the creek outlet which receives the treated effluent from the municipal sewage treatment plant at Gravenhurst.

The bacterial results of samples taken from Lake Joseph; Lake of Bays; Mary, Peninsula and Rosseau Lakes were satisfactory.

The samples obtained from the Muskoka River at the Highway No. 11A bridge in Huntsville and from Fairy Lake west of Alice Island showed coliform counts of 3,400 and 4,400 per 100 millilitres respectively. The remaining four samples from

Fairy Lake were of satisfactory bacteriological quality.

DISCUSSION

It should be pointed out that only one survey was conducted in 1962. If additional samples had been secured at the various sampling locations they may have shown further deterioration or improvement. It should also be borne in mind that some of the sampling points were selected in the vicinity of known sources of pollution and treated waste discharges.

The Towns of Bala, Bracebridge, Gravenhurst and Huntsville are served by municipal sewage works systems. Proposed disinfection of the treated effluent from the Gravenhurst sewage treatment plant should improve the bacteriological quality of the bay adjacent to the creek which receives the effluent from this plant. It is anticipated that this treatment will be commenced during the latter part of the summer. The condition of the river at Highway No. 11A at Huntsville, and at its confluence with Fairy Lake may be attributed to the fact that some premises in the Town of Huntsville had not yet connected to the municipal sewage works system. Since the time of this survey, the town has indicated that it is implementing the recommendations of the previous Commission report on a water pollution survey.

Water pollution surveys were carried out in the Towns of Bala and Bracebridge, the Hamlet of Milford Bay the Villages of Port Carling, Port Sydney and Windermere. Examinations were also made of the waste disposal facilities serving a number of lodges in the Muskoka area.

As a result of the 1962 water pollution surveys, some sources of pollution were located. However, the offenders have been notified that remedial measures are required. Action is being taken by this Commission to ensure that the necessary improvements are effected.

SUMMARY

A sampling survey of Muskoka Lakes was carried out during

the week of July 30, 1962. One hundred and one samples were obtained for bacteriological examination. Four samples exceeded the Ontario Water Resources Commission's objective of 2,400 coliform organisms per 100 millilitres. Fifteen samples showed counts ranging from 100 to 2,100. Eighty-two samples had coliform counts of less than 100 organisms per 100 millilitres indicating that the quality of the water in the Muskoka Lakes was for the most part satisfactory for recreational activities.

Water pollution surveys were conducted in a number of municipalities and built-up areas around these lakes. Some sources of pollution were evident and action is being taken to ensure that remedial measures are being effected.

This survey reports on the general condition of the water, which itself reflects the adequacy of waste disposal units in the area, whether these be private or otherwise. The assistance of all those using this drainage basin will be required to avoid deterioration of this quality.

All of which is respectfully submitted.

District Engineer:


C. H. Kretch

Approved by:


Assistant General Manager.

TABLE I
LAKE MUSKOKA

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
MU-1	Gravenhurst Wharf Area	2,100
1A	Vicinity of Creek Outlet from Gravenhurst S.T.P.	1,300
2	Gravenhurst Area	900
3	Ontario Hospital School- Gravenhurst (off Water Works)	60
3A	Ontario Hospital School- Gravenhurst (off S.T.P.)	1,500
4	Lighthouse Narrows Area	134,000
5	Muskoka Beach Area (Muskoka Sands Beach Area)	34
6	Ennis Bay (Beach Area)	31
7	Stephens Bay (Beach Area)	6
8	Off St. Elmo	700
9	North Muskoka River Mouth	66
10	Sandy Bay (north of Bangor Lodge)	111
11	Boyd Bay Area (Lake-Land Lodge & Tamarac Lodge Vicinity)	4
12	Off Tondern Island (West Side) Beaumaris Lodge Vicinity)	14
13	Milford Bay (Beach Area)	1,200
13A	North-east section Milford Bay	7,400
14	Port Keewadin (Scarcliff dock)	56
15	Narrows - south end of Mirror Lake	24
16	Narrows - north end of Mirror Lake	57

TABLE I (cont'd)

LAKE MUSKOKA

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
17	Port Carling at junction of locks and river	67
18	Mortimers Point Area	12
19	North Bay Area	4
20	Dudley Area (White Rock Cott. Vicinity)	1,800
21	Bala Park Area (Jeannette Narrows Vicinity)	3
22	Bala Area (Torrance Vicinity)	21
23	Bala @ Templeton's Marina	38
23A	Bala Falls Area	24
24	Barlochan Area @ Schell Marina	21
25	Walkers Point Area	22
25A	The Ark	38
26	Campbell's Landing	32

TABLE 2

LAKE JOSEPH

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
JO-1	Cox Bay Area	42
2	Elgin House Swimming Area	500
3	Glen Home Swimming Area	400
4	Joseph River Mouth	5
5	Craigie Lea Area	6
6	Stanley Bay @ Stanley House dock	4
7	Barnesdale Area (New C.N.I.B. vicinity)	28
8	Footes Bay Area	1,200

TABLE 3

LAKE ROSSEAU

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
RO-1	Port Carling Locks	36
2	Brackenrig Bay entrance	11
3	Windermere area off Fife House	29
4	Black Point (Wigwassan Lodge dock area)	36
5	Rostrevor Beach Resort	32
6	Juddhaven Area	3
7	Rosseau dock area	21
8	Morinurs Lodge Area	34
9	Minett Area (Paignton House dock)	27
10	Minett Area (Clevelands House south of dock)	17
11	Woodington Area	6
12	Muskoka Lakes Association Area	30
13	Ferndale House Area (Canadian Keswick Vicinity)	19

TABLE 4
LAKE OF BAYS

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
LB-1	Baysville Dam Area	900
2	Idylwyld Lodge Area	500
3	The Narrows	6
4	Nith Road Area	4
5	Black Point	4
6	Glenmount Hotel	8
7	Norway Point	6
8	Bigwin Island Area	9
9	Bigwin Island Area	8
10		4
11	The Narrows	6
12	The Narrows	62
13	Trading Bay	13
14	East side Ten Mile Bay	3
15	East side Ten Mile Bay @ Sea Breeze	4
16	Fox Point @ McClland boathouse	9
17	Haystack Bay	32
18		9
19	North-east corner Bigwin Island	18
20	Port Cunningham	19

TABLE 4 (cont'd)

LAKE OF BAYS

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
21	North side Bigwin Island	1
22		3
23	Ideal Point	1
24		4
25	Dwight Area @ dock	3
25A	Mouth of Oxtongue River	9
26	Dwight Area	3
27	Rat Bay	400
28	South Portage @ dock	7
29	Brittania Hotel	11
30	Clovelly Point	3

TABLE 5

FAIRY LAKE

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
FA-1	Fairy Lake at Hwy. 11A Bridge - Huntsville	3,400
2	Fairy Lake west of Alice Island	4,400
3	North Shore off Golden Pheasant Lodge	46
4	Puck's Lodge Vicinity	8
5	N. Muskoka R. under bridge between Fairy & Peninsula Lakes	48
6	Locks at Hwy. 527	82

TABLE 6

PENINSULA LAKE

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
PE-1	Peninsula Lake east of Canal	400
2	Tally-Ho-Inn Vicinity	28
3	Portage Lodge Vicinity	4
4	Springside Beach Area	1
5	Springside Beach Area	4
5A	Putin Bay	25

TABLE 7

MARY LAKE

Sampling Point No.	Location	M.F. Coliform Count/100 ml.
MA-1	Mary Lake & Mouth of N. Muskoka River	21
2	Rowanwood Lodge Vicinity	19
2A	Mouth of Lancelot Creek	16
3	Port Sydney Public Beach	11
4	Port Sydney Vicinity	22
5	Muskoka Lodge Public Beach	58

